

## ABSTRACT

A transmission apparatus capable of improving overall throughput of a system by suppressing peaks using some frequencies in a communication band. In this  
5 apparatus, modulation section (102) adaptively modulates transmission data. Combination section (103) combines the waveform of the transmission data and the waveform of an inverse replica and suppresses peaks equal to or higher than a threshold. When there are peaks equal to  
10 or higher than a threshold, inverse replica generation section (112) extracts the waveform of a peak equal to or higher than the threshold and generates an inverse replica which is the waveform having the inverse characteristic of the extracted waveform. Where MCS is  
15 set for each subcarrier, sub-band selection section (114) selects the frequency of a subcarrier having large margin in reception quality and outputs the inverse replica within the range of the selected frequency to combination section (103).